

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (currently amended) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) ~~greater than 5% and up from 15~~ to 75% by weight of one or more lipophilic solvents;

(b) one or more lipophobic plant nutrients present in an amount up to about 50% by weight; and

(c) a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present in an amount up to about 50% by weight;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 2. (currently amended) An adjuvant according to claim 1 comprising:

(a) from ~~5~~ 15 to 55 % by weight of one or more lipophilic solvents;

(b) from 1 to 30 % by weight of one or more lipophobic plant nutrients; and

(c) from 1 to 15% of a mixture of one or more cationic emulsifiers.

Claim 3. (previously presented) An adjuvant according to claim 2 comprising:

(a) from 15 to 35% by weight of one or more lipophilic solvents;

(b) from 5 to 25% by weight of one or more lipophobic plant nutrients; and

(c) from 1 to 10% of a mixture of one or more cationic emulsifiers.

Claim 4. (previously presented) An adjuvant according to claim 1 wherein the lipophilic solvent is selected from the group consisting of petroleum fractions, vegetable oils,

synthetic triglycerides, alkyl esters of fatty acids, fatty alcohols, guerbet alcohols or any mixture thereof.

Claim 5. (previously presented) An adjuvant according to claim 4 wherein the lipophilic solvent comprises a petroleum fraction.

Claim 6. (previously presented) An adjuvant according to claim 5 wherein the petroleum fraction is a mineral oil.

Claim 7. (previously presented) An adjuvant according to claim 4 wherein the lipophilic solvent comprises an alkyl ester of a fatty acid.

Claim 8. (previously presented) An adjuvant according to claim 7 wherein the fatty acid of the alkyl ester of a fatty acid has an alkyl moiety derived from the simple alcohols methanol, ethanol, propanol or butanol.

Claim 9. (previously presented) An adjuvant according to claim 7 wherein the alkyl ester of a fatty acid is derived from natural oils and fats, specific blends produced by fatty acid manufacturers or from fatty acids produced by synthetic means.

Claim 10. (previously presented) An adjuvant according to claim 9 wherein the natural oils and fats are selected from the group consisting of lard, tallow, vegetable oils and mixtures thereof.

Claim 11. (previously presented) An adjuvant according to claim 1 wherein the lipophobic plant nutrients comprise one or more ammonium salts of inorganic ions.

Claim 12. (previously presented) An adjuvant according to claim 11 wherein the ammonium salts of inorganic ions are selected from the group consisting of ammonium sulfate, ammonium phosphate and mixtures thereof.

Claim 13. (previously presented) An adjuvant according to claim 12 wherein the ammonium salt of inorganic ions is ammonium sulfate.

Claim 14. (previously presented) An adjuvant according to claim 1 wherein the cationic emulsifiers are selected from fatty amines, fatty amine oxides or mixtures thereof.

Claim 15. (previously presented) An adjuvant according to claim 1 wherein the cationic emulsifiers are quaternary cationic emulsifiers.

Claim 16. (previously presented) An adjuvant according to claim 1 wherein the cationic emulsifiers are selected from dimethylcocoamine, dimethyllaurylamine oxide, alkyltrimethylammonium chloride, alkyl dimethylbenzylammonium chloride, alkylpyridium chloride, alkylimidazolium chloride, or mixtures thereof.

Claim 17. (previously presented) An adjuvant according to claim 16 wherein the cationic emulsifiers are selected alkyltrimethylammonium chloride, dimethyllaurylamine oxide or mixtures thereof.

Claim 18. (previously presented) An adjuvant according to claim 1 further comprising one or more other components to improve the form of the composition.

Claim 19. (previously presented) An adjuvant according to claim 18 wherein the other component is selected from nonionic emulsifiers, co-solvents and mixtures thereof.

Claim 20. (previously presented) An adjuvant according to claim 18 wherein the other component is a mixture of one or more nonionic emulsifiers.

Claim 21. (previously presented) An adjuvant according to claim 19 wherein the nonionic emulsifiers are selected from the group consisting of alkyl polysaccharides, sorbate emulsifiers, alcohol ethoxylates, fatty alkanolamides or mixtures thereof.

Claim 22. (previously presented) An adjuvant according to claim 18 wherein the other component is a co-solvent.

Claim 23. (previously presented) An adjuvant according to claim 22 wherein the co-solvent is selected from the group consisting of propylene glycol, 1,3-butanediol, hexylene glycol, polypropylene glycols, ethanol or mixtures thereof.

Claim 24. (previously presented) An adjuvant according to claim 6 wherein the cationic emulsifiers are quaternary cationic emulsifiers.

Claim 25. (previously presented) An adjuvant according to claim 24 further comprising nonionic emulsifiers selected from the group consisting of alkylpolysaccharides, fatty alkanolamide, sorbitan monooleate, alcohol ethoxylate and mixtures thereof.

Claim 26. (previously presented) An adjuvant according to claim 24 further comprising co-solvents selected from the group consisting of 1,3-butanediol, ethanol and mixtures thereof.

Claim 27. (previously presented) An adjuvant according to claim 1 wherein a mixture of at least two cationic emulsifiers is used.

Claim 28. (previously presented) An adjuvant according to claim 27 wherein the mixture of cationic emulsifiers comprises fatty quaternary ammonium chlorides and/or fatty amine oxides in conjunction with fatty alkyldimethylamine salts of simple organic acids.

Claim 29. (previously presented) An adjuvant according to claim 1 further comprising one or more other available adjuvant components.

Claim 30. (currently amended) An agrochemical composition comprising a chemical used in agriculture and an activity enhancing amount of a homogeneous liquid adjuvant, said homogeneous liquid adjuvant comprising:

- (a) ~~greater than 5% and up from 15%~~ to 75% by weight of one or more lipophilic solvents;
- (b) one or more lipophobic plant nutrients present up to about 50% by weight; and
- (c) a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 31. (canceled)

Claim 32. (currently amended) A method for enhancing the activity of a chemical used in agriculture comprising the step of combining the chemical with a homogeneous liquid adjuvant comprising:

- (a) ~~greater than 5% and up to from 15%~~ to 75% by weight of one or more lipophilic solvents;
- (b) one or more lipophobic plant nutrients present up to about 50% by weight; and
- (c) a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 33. (previously presented) A method of treating vegetation comprising the step of applying to said vegetation an agrochemical composition comprising a chemical used in agriculture and a homogeneous liquid adjuvant comprising:

(a) ~~not in excess of about from 15 to 75% by weight of one or more lipophilic solvents;~~

(b) ~~not in excess of about 50% by weight of one or more lipophobic plant nutrients present in an amount up to about 50% by weight; and~~

(c) ~~not in excess of about 50% of a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers which exhibit cationic characteristics in acidic conditions and mixtures thereof, present in an amount up to about 50%;~~

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 34. (previously presented) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) from 15 to 35% by weight of one or more mineral oils;

(b) from 5 to 25% by weight of one or more ammonium salts of inorganic anions; and

(c) from 1 to 10% of one or more cationic emulsifiers selected from the group consisting of fatty amines, fatty amine oxides and mixtures thereof;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 35. (previously presented) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) from 15 to 35% by weight of one or more mineral oils;

(b) from 5 to 25% by weight of one or more ammonium salts of inorganic anions selected from ammonium sulfate, ammonium phosphate and mixtures thereof; and

(c) from 1 to 10% of one or more cationic emulsifiers selected from dimethylcocoamine, dimethyllaurylamine oxide, alkyltrimethyl-ammonium chloride, alkyl dimethylbenzylammonium chloride, alkylpyridium chloride, alkylimidazolium chloride, or mixtures thereof;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 36. (previously presented) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

- (a) from 15 to 35% by weight of one or more mineral oils;
- (b) from 5 to 25% by weight of one or more ammonium salts of inorganic anions selected from ammonium sulfate, ammonium phosphate and mixtures thereof;
- (c) from 1 to 10% of one or more cationic emulsifiers selected from dimethylcocoamine, dimethyllaurylamine oxide, alkyltrimethyl-ammonium chloride, alkyl dimethylbenzylammonium chloride, alkylpyridium chloride, alkylimidazolium chloride, or mixtures thereof; and
- (d) from 1 to 30% of one or more other components to improve the form of the composition;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 37. (previously presented) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

- (a) from 15 to 35% by weight of one or more mineral oils;
- (b) from 5 to 25% by weight of one or more ammonium salts of inorganic anions selected from ammonium sulfate, ammonium phosphate and mixtures thereof;
- (c) from 1 to 10% of one or more cationic emulsifiers selected from dimethylcocoamine, dimethyllaurylamine oxide, alkyltrimethyl-ammonium chloride, alkyl dimethylbenzylammonium chloride, alkylpyridium chloride, alkylimidazolium chloride, or mixtures thereof; and
- (d) from 1 to 30% of one or more other components to improve the form of the composition selected from nonionic emulsifiers, co-solvents and mixtures thereof;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 38. (previously presented) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

- (a) from 15 to 35% by weight of one or more mineral oils;
- (b) from 5 to 25% by weight of one or more ammonium salts of inorganic anions selected from ammonium sulfate, ammonium phosphate and mixtures thereof;
- (c) from 1 to 10% of one or more cationic emulsifiers selected from dimethylcocoamine, dimethyllaurylamine oxide, alkyltrimethyl-ammonium chloride, alkyl dimethylbenzylammonium chloride, alkylpyridium chloride, alkylimidazolium chloride, or mixtures thereof; and
- (d) from 1 to 30% of one or more other components to improve the form of the composition selected from alkyl polysaccharides, sorbate emulsifiers, fatty alkanolamides, glycols and mixtures thereof;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 39. (currently amended) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

- (a) ~~greater than 5% and up from 15%~~ to 75% by weight of one or more lipophilic solvents;
- (b) one or more lipophobic plant nutrients present up to about 50% by weight; and
- (c) a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight; and
- (d) from 1 to 30% of one or more other components to improve the form of the composition;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 40. (currently amended) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) ~~greater than 5% and up from 15%~~ to 75% by weight of one or more lipophilic solvents;

(b) one or more lipophobic plant nutrients present up to about 50% by weight; and

(c) a mixture of one or more cationic emulsifiers selected from the group consisting of cationic emulsifiers, emulsifiers having cationic characteristics in acidic conditions and mixtures thereof present up to about 50% by weight; and

(d) from 1 to 30% of one or more other components to improve the form of the composition selected from the group consisting of nonionic emulsifiers, co-solvents and mixtures thereof;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 41. (previously presented) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) from 15 to 35% by weight of one or more alkyl esters of fatty acids;

(b) from 5 to 25% by weight of one or more ammonium salts of inorganic anions; and

(c) from 1 to 10% of a mixture of two or more cationic emulsifiers selected from the group consisting of fatty quaternary ammonium chlorides, fatty amine oxides, fatty alkyldimethylamine salts of simple organic acids and mixtures thereof; wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 42. (previously presented) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) from 15 to 35% by weight of one or more alkyl esters of fatty acids;

(b) from 5 to 25% by weight of one or more ammonium salts of inorganic anions selected from ammonium sulfate, ammonium phosphate and mixtures thereof; and

(c) from 1 to 10% of a mixture of two or more cationic emulsifiers selected from the group consisting of fatty quaternary ammonium chlorides, fatty amine oxides, fatty alkyldimethylamine salts of simple organic acids and mixtures thereof; wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 43. (previously presented) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) from 15 to 35% by weight of one or more alkyl esters of fatty acids;

(b) from 5 to 25% by weight of one or more ammonium salts of inorganic anions selected from ammonium sulfate, ammonium phosphate and mixtures thereof;

(c) from 1 to 10% of a mixture of two or more cationic emulsifiers selected from the group consisting of fatty quaternary ammonium chlorides, fatty amine oxides, fatty alkyldimethylamine salts of simple organic acids and mixtures thereof; and

(d) from 1 to 30% of one or more other components to improve the form of the composition; wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 44. (previously presented) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

(a) from 15 to 35% by weight of one or more alkyl esters of fatty acids;

(b) from 5 to 25% by weight of one or more ammonium salts of inorganic anions selected from ammonium sulfate, ammonium phosphate and mixtures thereof;

(c) from 1 to 10% of a mixture of two or more cationic emulsifiers selected from the group consisting of fatty quaternary ammonium chlorides, fatty amine oxides, fatty alkyldimethylamine salts of simple organic acids and mixtures thereof; and

(d) from 1 to 30% of one or more other components to improve the form of the composition selected from nonionic emulsifiers, co-solvents and mixtures thereof; wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.

Claim 45. (previously presented) A homogeneous liquid adjuvant for use with a chemical used in agriculture comprising:

- (a) from 15 to 35% by weight of one or more alkyl esters of fatty acids;
- (b) from 5 to 25% by weight of one or more ammonium salts of inorganic anions selected from ammonium sulfate, ammonium phosphate and mixtures thereof;
- (c) from 1 to 10% of a mixture of two or more cationic emulsifiers selected from the group consisting of fatty quaternary ammonium chlorides, fatty amine oxides, fatty alkyldimethylamine salts of simple organic acids and mixtures thereof; and
- (d) from 1 to 30% of one or more other components to improve the form of the composition selected from alkyl polysaccharides, sorbate emulsifiers, fatty alkanolamides, glycols and mixtures thereof;

wherein the cationic emulsifier acts as a coupling agent between the lipophilic solvent and the lipophobic plant nutrient to form a homogeneous liquid composition.